

SEQUENCE LISTING

<110> KOIZUMI, Takeshi
NISHIYAMA, Yoko
YAMAMOTO, Satoshi
FUKUYAMA, Masafumi
FURUHATA, Katsunori
OONAKA, Kenji

<120> PRIMER AND PROBE FOR DETECTING VIBRIO CHOLERAЕ OR VIBRIO MIMICUS
AND DETECTION METHOD USING THE SAME

<130> Q88467

<140> US 10/538,636
<141> 2005-06-10

<150> PCT/JP03/15889
<151> 2003-12-11

<150> JP 2002-362878
<151> 2002-12-13

<160> 64

<170> PatentIn version 3.3

<210> 1
<211> 885
<212> DNA
<213> Artificial sequence

<220>
<223> Consensus sequence of Vibrio Cholerae and Vibrio mimicus gyrB

<400> 1
gtmtccggyg gcttrcacgg ggtaggtgtg tcggtgrtka aygcscbtbc wgaaaaagtg 60
ctrctbacca tytatcgygg yggcaaraty caywscscaa cttaccatca ygggtgtgcca 120
caagcaccgt tgkctgttgt rrgtgakacw gagcgtagcg gtactaccgt acgtttcttg 180
ccwagygac aracytttac caatatcgaa ttypattacg acattytggc taaacgyctg 240
cgtgagctgt cattcctgaa ytctggcgtg tcgatcaagc tgaysgatga rcgtgaagaa 300
gataaraaag accacttyat gtatgaaggk ggtattcaag cgtttgtkac ccacttgaac 360
cgaaayaaaa cgccratcca tgaraaagtm ttccacttya accaagagcg tgaagatggc 420
atcagcgtgg aagtggcrat gcagtggaay gatggtttcc aagaaaacat ctactgcttt 480
acyaacaaca tyccacagcg tgatggyggt acccayttag cyggtttccg tgggtgcrttg 540
acccgtactt tgaacaacta yatggayaaa gaaggcttct cgaagaaagc scaagcrgca 600
acctcgggtg atgatgcgcg tgaaggctta acrgcdgtkg tdtcggtgaa agtrccrgat 660
cctaaattct cragccaaac caagataag ctrgtttctt cggargtraa atccgcrgtt 720
gartcagcyt tgaatgagaa gctggcrgat ttcctrgcgg aaaaccaag cgaagcgaaa 780
aacgtttgtt cgaagattat tgatgcrgcr cghgckcgtg aagcvgcgcg taaagcmcgk 840

gaaatgacyc gycgtaaagg cgcgytrgay ythgcwgggt trcch

885

<210> 2
<211> 822
<212> DNA
<213> Artificial Sequence

<220>
<223> Consensus sequence of *Vibrio cholerae* and *vibrio mimicus* rpoD

<400> 2
acacgtgaag gygaaatcga tattgccaag cgcattgaag atggtattaa ccaagttcaa 60
agtgcgattg ctgagtatcc tggaaccatc ccwtayattc ttgarcagtt tgaymrkgtt 120
caggcmgaag arctacgtct sactgayctg atttcwgggt tcggtgaycc taacgacatg 180
gaaaccgaag cgccaacygc kactcacatc ggttcwgarc tytctgaagc sgatctcgck 240
gatgaagatg aygmkgctgy sgargatgaa gacgargatg aagaygaaga yggcgacggt 300
gaaagyagcg acagcgaaga agaagtsagg atygaccctg arctsgctcg tgagaaattc 360
aatgaactgc gcggyaagtt ccaaaacctg caattagcgg ttaatgaatt tggtcgtgac 420
agtmaycaag cwtctgaagc ktcarrcytr gtrytgata tyttccgyga attccgycta 480
acaccaaarc aattygacca yttggttgaa actctgcgya cytcratgga tcgtgttcgy 540
acccaagarc gyttggrat gaaagcvgr gttgaagtcg cgaaratgcc raagaaatcr 600
ttyatygcyc trtttacagg caatgaatcg aatgargart ggctbgataa agtvctygct 660
tctgayaarc cttaygtasm raaagtmcgt gagcaagaag amgakatycg ccgytcaaty 720
caraaactdc aratgatcga rcargagacw tcactgtctg ttgarccgyat caaagacatc 780
agccgtcgta tgtcwatcgg tgargcraaa gctcgccgtg cg 822

<210> 3
<211> 822
<212> DNA
<213> Artificial Sequence

<220>
<223> Consensus sequence *Vibrio cholerae* gyrB

<400> 3
gtmtccggyg gtctgcacgg ggtagggtg tcggtgggta acgcgctytc tgaaaaagtg 60
ctrctyacca tytctgygg yggcaaratc caywcscaaa cttaccatca tgggtgtgcca 120
caagcaccgt tggctgtrgt rggtgakacw gagcgtagcg gtactaccgt acgtttctgg 180
ccwagygcac aracytttac caatatcgaa ttcattacg acattttggc taaacgcctg 240
cgtgagctgt cattcctgaa ytctggcgtg tcgatcaagc tgaycgatga acgtgaagaa 300
gataaaaaag accacttcat gtatgaaggg ggtattcaag cgtttgtgac ccacttgaac 360
cgayaayaaa cgccratcca tgagaaagtc ttccacttta accaagagcg tgaagatggc 420

atcagcgtgg aagtggcrat gcagtggaay gatgggtttcc aagaaaacat ctactgcttt	480
acyaacaaca tcccacagcg tgatgggtgg acccayttag ccggtttccg tgggtgcgttg	540
acccgtactt tgaacaacta yatggayaaa gaaggcttct cgaagaaagc scaagcggca	600
acctcgggtg atgatgcgcg tgaaggctta acggcwggtg twtcggtgaa agtgccggat	660
cctaaattct cragccaaac caaagataag ctggtttctt cggaagtaaa atccgcrgtt	720
gartcagcya tgaatgagaa gctggcrgat ttcctagcgg aaaacccaag cgaagcgaaa	780
aacgtttgtt cgaagattat tgatgcrgrc cgygckcgtg aagcsgcgcg taaagcccgk	840
gaaatgactc gycgtaaagg cgcgytggat cttgcwggct taccc	885

<210> 4
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Consensus sequence of *Vibrio cholerae* rpoD

<400> 4	
acacgtgaag gtgaaatcga tattgccaag cgcattgaag atggtattaa ccaagttcaa	60
agtgcgattg ctgagtatcc tggaaccatc ctttatattc ttgagcagtt tgatcgtgtt	120
caggccgaag agctacgtct cactgacctg atttcagggt tcgttgaycc taacgacatg	180
gaaaccgaag cgccaaccgc gactcacatc ggttctgagc tttctgaagc ggatctcgcg	240
gatgaagatg atgctgtcgt cgaagatgaa gacgaagatg aagacgaaga tggcgacggt	300
gaaagcagcg acagcgaaga agaagtcggt atcgaccctg aactggctcg tgagaaattc	360
aatgaactgc gcggyaagtt ccaaaacctg caattagcgg ttaatgaatt tggtcgtgac	420
agtcatcaag cttctgaagc gtcagactta gtgytggata tcttccgtga attccgycta	480
acaccaaagc aattcgacca cttggttgaa actctgcgca cttcaatgga tcgtgttcgc	540
acccaagaac gtttggttat gaaagcggta gttgaagtcg cgaagatgcc gaagaaatcg	600
ttcatcgccc tattttacagg caatgaatcg aatgaagagt ggctggataa agtccttgct	660
tctgacaagc cttacgtagc gaaagtccgt gagcaagaag aagagatccg ccgttcaatt	720
cagaaactac aaatgatcga gcaagagaca tcaactgtctg ttgaacgcat caaagacatc	780
agccgtcgta tgtcaatcgg tgaggcraaa gctcgccgtg cg	822

<210> 5
 <211> 885
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Consensus sequence of *Vibrio mimicus* gyrB

<400> 5

gtctccggtg gtctacacgg ggtaggtgtg tccgtagtga atgccctgtc agaaaaagtg	60
ctgctbacca tttatcgtgg tggcaagatt cacacccaaa cttaccatca cgggtgtgcca	120
caagcaccgt tgtctgtrgt gggtgagact gagcgtaccg gtactaccgt acgtttctgg	180
cctagtgcac agacttttac caatatcgaa ttccattacg acattctggc taaacgyctg	240
cgtgagctgt cattcctgaa ctctggcgtg tcgatcaagc tgacggatga gcgtgaagaa	300
gataagaaag accacttyat gtatgaaggt ggtattcaag cgtttgtkac ccacttgaac	360
cgtaayaaaa cgccgatcca tgaaaaagta ttccacttca accaagagcg tgaagatggc	420
atcagcgtgg aagtggcaat gcagtggaac gatggtttcc aagaaaacat ctactgcttt	480
accaacaaca tyccacagcg tgatggcggg acccacttag cyggtttccg tgggtgcrttg	540
acccgtactt tgaacaacta catggacaaa gaaggcttct cgaagaaagc scaagcrgca	600
acctcgggtg atgatgcgcg tgaaggctta acrgcrgtkg tktcggtgaa agtrccrgat	660
cctaaattct cragccaaac caaagataag ctrgtttctt cggargtgaa atccgcggtt	720
gagtcagcca tgaatgagaa gctggcggat ttcctggcgg aaaaccaag cgaagcgaaa	780
aacgtttgtt cgaagattat tgatgcrgrc cghgctcgtg aagcvgcgcg taaagcacgt	840
gaaatgacyc gtcgtaaagg cgcgctagay ytmgctgggt tgccw	885

<210> 6
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Consensus sequence of *Vibrio mimicus* rpoD

<400> 6	
acacgtgaag gcgaaatcga tattgccaag cgcattgaag atggtattaa ccaagttcaa	60
agtgcgattg ctgagtatcc tggaaccatc ccatacattc ttgaacagtt tgacaagggt	120
caggcagaag aactacgtct gactgayctg atttctgggt tcgttgatcc taacgacatg	180
gaaaccgaag cgccaactgc tactcacatc ggttcagarc tctctgaagc cgatctcgct	240
gatgaagatg acgaggtcgc ggaggatgaa gacgaggatg aagatgaaga cggcgacggt	300
gaaagyagcg acagcgaaga agaagtgggt attgaccctg agctcgctcg tgagaaattc	360
aatgaactgc gcggcaagtt ccaaaacctg caattagcgg ttaatgaatt tggtcgtgac	420
agtaaccaag catctgaagc ttcaagcctg gtactggata tyttccgcga attccgccta	480
acacaaaaac aatttgacca tttggttgaa actctgcgta cctcgatgga tcgtgttcgt	540
accaagagc gytggtgat gaaagcvgtg gttgaagtcg cgaaaatgcc aaagaaatca	600
tttattgcyc trtttacagg caatgaatcg aatgargaat ggctygataa agtrctcgct	660
tctgataarc cttatgtaca aaaagtacgt gagcaagaag acgatattcg ccgctcaatc	720

caaaaactkc agatgatcga acargagact tcactgtctg ttgagcgtat caaagacatc 780
agccgctgta tgtctatcgg tgaagcgaaa gctcgccgtg cg 822

<210> 7
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 7 19
tycaywcsca aacttacca

<210> 8
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 8 22
gaaytctggc gtgtcgatca ag

<210> 9
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 9 22
catrtagttg ttcaaagtac gg

<210> 10
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 10 25
ggatttyacy tccgaagaaa cyagc

<210> 11
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 11 19
ygccagcttc tcattcatr

<210> 12
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 12
cgcttcgctt gggttttcc

19

<210> 13
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 13
caataatctt cgaacaaacg t

21

<210> 14
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 14
gattgctgag tatcctggaa ccatc

25

<210> 15
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 15
gaycctaacg acatggaaac c

21

<210> 16
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 16
ttcwgacety tctgaagcs

19

<210> 17
<211> 19
<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 17

agatgaygmK gtcgysgar

19

<210> 18

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 18

cgacggtgaa agyagcgaca g

21

<210> 19

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 19

caatgaactg cgcggyaagt t

21

<210> 20

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 20

gtcacgacca aattcattaa c

21

<210> 21

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 21

gyytgamgct tcagawgctt grtkA

25

<210> 22

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 22 ygargtrcgc agagtttcaa cc	22
<210> 23 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 23 catyaccaar cgytcttg	19
<210> 24 <211> 21 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 24 cgytcaacag acagtgawgt c	21
<210> 25 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 25 ggtggttaac gcgctytct	19
<210> 26 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 26 ycgatgaacg tgaagaagat aaa	23
<210> 27 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 27 tgagaaagtc ttccacttt	19

<210> 28
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 28
gttaaagtgg aagactttc

19

<210> 29
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 29
gggtaagccw gcaagatcc

19

<210> 30
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 30
attcttgagc agtttgatcg t

21

<210> 31
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 31
caggccgaag agctacgtct c

21

<210> 32
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 32
tgagctttct gaagcggatc tcgcg

25

<210> 33
<211> 21
<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 33

gaagatgatg ctgtcgtcga a

21

<210> 34

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 34

gaagatgaag acgaagat

18

<210> 35

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 35

cggtatcgac cctgaactg

19

<210> 36

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 36

catcaagctt ctgaagcgtc aga

23

<210> 37

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 37

tcaaccaagt ggtcgaattg c

21

<210> 38

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 38 acggaagata tccarcacta a	21
<210> 39 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 39 gcgaacacga tccattgaag tg	22
<210> 40 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 40 gatgaacgat ttcttcggca tc	22
<210> 41 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 41 aaggacttta tccagccac	19
<210> 42 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 42 ttctttcttgc tcacggactt tcgc	24
<210> 43 <211> 21 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 43 ttctgaattg aacggcggat c	21

<210> 44
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 44
tgtctcttgc tcgatcattt gt

22

<210> 45
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 45
ggtagtgaat gccctgtca

19

<210> 46
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 46
cggatgagcg tgaagaagat aag

23

<210> 47
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 47
tgaaaaagta ttccacttc

19

<210> 48
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 48
gttgaagtgg aatactttt

19

<210> 49
<211> 19
<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 49

wggcaaacca gckarrtct

19

<210> 50

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 50

cattcttgaa cagtttgaca ag

22

<210> 51

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 51

caggcagaag aactacgtct g

21

<210> 52

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 52

agarctctct gaagccgatc tcgct

25

<210> 53

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 53

gaagatgacg aggtcgcgga g

21

<210> 54

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 54 gaggatgaag atgaagac	18
<210> 55 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 55 gggtattgac cctgagctc	19
<210> 56 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 56 taaccaagca tctgaagctt caag	24
<210> 57 <211> 21 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 57 tcaaccaaatt ggtcaaattg t	21
<210> 58 <211> 21 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 58 gcggaarata tccagtacca g	21
<210> 59 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> primer	
<400> 59 acgaacacga tccatcgagg ta	22

<210> 60
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 60
aataaatgat ttctttggca tt

22

<210> 61
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 61
gagyacttta tcragccat

19

<210> 62
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 62
gtcttcttgc tcacgtactt ttg

24

<210> 63
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 63
ttggattgaa gggcgaata

19

<210> 64
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 64
agtctcytgt tcgatcatct gm

22